SUMMARY OF COMMENTS AND RESPONSE TO COMMENTS
FROM PUBLIC HEARINGS

ON

PROPOSED REVISIONS TO THE STATE IMPLEMENTATION PLAN FOR OZONE,
INCLUDING PROPOSED 310 CMR 7.28

Held: Monday, August 3, 1999 in Springfield, Massachusetts
Tuesday, August 4, 1999 in Boston, Massachusetts
Thursday, October 28, 1999 in Boston, Massachusetts.

In July of 1999, the Massachusetts Department of Environmental Protection (DEP) released a proposed regulation and Technical Support Document for a NO_x Allowance Trading Program for large fossil-fuel fired sources in order to reduce NO_x emissions. This program was presented as the proposed new regulation 310 CMR 7.28. DEP held two public hearings, and solicited written testimony on the proposed regulation.

In response to issues that were raised during the public comment period, DEP released a supplemental Technical Support Document to provide opportunity for additional public comment in September of 1999. DEP held one public hearing, and written comments were solicited on specific modified portions of the proposed regulation.

Pursuant to MGL Chapter 30A, the hearings were held to gather comments on the proposed revisions to the State Ozone Implementation Plan, including the proposed 310 CMR 7.28, the NOx Allowance Trading Program, and revisions to 310 CMR 7.27 and 310 CMR 7.19. Public notices were published in four newspapers across Massachusetts, and were sent to interested parties.

This document responds to comments that were received during both public comment periods. DEP appreciates the input from those who testified at the public hearings and submitted written comments into the hearing docket. Comments are grouped according to the following categories/issues:

1. Allocation Method
2. Preferred Option
3. Size of State NOx Budget for Allocation
4. Public Benefit Set-Aside
5. Allocation to New Units
6. Procedures
7. Monitoring and Reporting
8. Other
9. Definitions/Technical Comments

Comments are followed by numbers indicating the corresponding organization(s) or individual(s) that submitted the testimony. Commenters are only identified by one number even if separate comments were submitted in the July and October comment periods. The commenters are listed below:

(1) Advanced Energy Systems, Inc. (Paul G. Wallach and Kenneth R. Meade)
(2) American National Power (Willard R. Pope and Jonathan Sepich)
(3) Associated Industry of Massachusetts
(4) Bob Machaver
(5) Conservation Law Foundation
(6) Coalition for Gas-Based Environmental Solutions
(7) Competitive Power Coalition of New England, Inc.
(8) Massachusetts Division of Energy Resources
(9) Massachusetts Department of Telecommunications and Energy
(10) Enron Corporation
(11) US Environmental Protection Agency
(12) General Electric
(13) Infrastructure Development Company and FPL Energy
(14) James Kenny, MD
(15) Leonardo Academy
(16) Massachusetts Municipal Wholesale Electric Company
(17) Massachusetts Water Resources Authority
(18) NEO Corporation
(19) New Hampshire Department of Environmental Services
(20) Northeast Energy Efficiency Council
(21) Northeast Utilities System
(22) NRG Energy, Inc.
(23) Pacific Gas & Electric Generating
(24) Senator Michael W. Morrissey
(25) Sithe Energies, Inc.
(26) Southern Energy New England
(27) Sun Power Electric Company / Conservation Services Group
(28) Taunton Municipal Lighting Plant & Braintree Electric Light Department (Kenneth M. Barna and Keren Schlomy)
(29) Trigen-Boston Energy Corporation

New Commenters from October Comment Period:

(30) Clean Water Action
(31) Energy Management, Inc.
(32) Campaign to Clean Up Polluting Power Plants
(33) Peabody Municipal Light Plant
(34) AllEnergy Marketing Company

1. ALLOCATION METHOD

Comment: Commenters support DEP's output-based method of allocation. This method encourages pollution prevention and the operation of cleaner and more efficient energy sources, and helps establish a fair marketplace. It provides several environmental benefits, including significant collateral reductions in emissions of other pollutants, provides a template for mechanisms to reduce emissions of other pollutants, and meets the objective of the Clean Air Act to use market-based mechanisms in pollution control programs. The output-based method is practical to implement, is flexible, permits management of efficiency parameters, and is suitable for application to a variety of plant configurations. Coupled with allowance trading, the output-based allocation will ensure emission reductions are achieved at the lowest available cost. (2) (6) (8) (9) (10) (13) (15) (17) (19) (20) (23) (25) (27) (29)

Response: DEP agrees with the points raised by commenters, and is pleased to see widespread support.

Comment: The output-based method does not create an unfair "windfall" for clean sources; these sources spend millions of dollars in capital and operating expenses to minimize emissions, resulting in an unfair economic advantage for dirtier, older units that don't have similar expenses. (2) (6)

Response: DEP agrees with this comment.

Comment: The primary state agencies responsible for implementing the provisions of Massachusetts' electric industry restructuring legislation comment that the output-based allocation of allowances is consistent with Massachusetts' electric industry restructuring legislation, supports full and fair competition in generation markets, and feel that it is an important step in leveling the competitive playing field for generation. Commenters believe that an electrical output-based allocation establishes the proper economic incentives to increase the efficiency of generation, rewards clean and efficient generation rather than fuel consumption, and correctly aligns electric generation business incentives and the environmental objective of clean air. It will encourage and reward efficient operation of existing facilities, cost-effective investments in pollution prevention and pollution controls, and investments in clean modern facilities. (8) (9)

Response: DEP agrees, and will work with its fellow agencies to ensure a smooth implementation of the final regulation.

Comment: Through the proposed output-based method, DEP is setting energy policy that is inappropriate and unfair. The proposed method is an inappropriate intrusion into economic/energy policy in the state. (12) (21)

Response: The benefits of controlling emissions through market-based mechanisms, such as the proposed allowance trading program, include introducing proper economic signals into pollution control programs. In so doing, states reduce emissions and obtain air quality objectives in a manner guaranteed to minimize the overall costs to consumers and industry. The key to achieving the maximum level of economic efficiency in "cap and trade" programs is distributing allowances in a manner that will encourage the most efficient investments in pollution control technologies. An allowance auction, or an allowance allocation based on an updating tons emitted per unit of useful output -- in this case electricity or steam -- provide the best incentives for efficient pollution control investments. In addition, the economic signal from an updating, output-based allocation, all else held equal, encourages the operation of generating facilities with lower rates of emissions of several other pollutants with significant public health and environmental benefits. In considering these economic and environmental benefits, DEP concludes that the output-based method is neither inappropriate nor unfair.

Comment: DEP has received several comments on the impact of the new regulation on specific sources. Some commenters felt that use of the historical output baseline will bias the allocation to existing units. (21) (25) Others felt that smaller units are disadvantaged. (16) (28) Some commenters felt that new units will get a disproportionate share of allowances. (12) (21) (23) (24)

Response: DEP considers it important to select an allocation method based on environmental and economic principles, rather than on the relative impact on competing economic interests. DEP has taken an output-based approach in recognition that, in terms of allowances allocated, any allocation method will be better for some than for others. An output-based allocation is better for generating facilities that produce the fewest tons of pollution per unit of electrical output. This approach benefits a different set of sources than the most common alternative to an output-based allocation, i.e., an allowance allocation based on heat (or fuel) input (lb/mmBtu). An input-based allocation rewards facilities based on fuel consumed, regardless of the quantity of useful output derived. DEP believes the output-based allocation method represents the best environmental and energy policy for Massachusetts.

Comment: Some commenters were concerned that, under the output-based allocation, certain units would receive allocations that exceed their potential emissions, while others would receive allocations that were lower than historical emission baselines used in other emission control programs. These commenters recommended various mechanisms for addressing these concerns through the use of "ceilings" or "floors" on individual unit allowance allocations. Examples of alternative proposals include:

- using a facility's potential to emit and then applying equal percentage reductions to achieve the cap (12);
- limiting any facility's allocation to potential to emit (12) (16) (21) (23) (24);
- adopting the allocation system proposed in Connecticut, which provides post-1990 sources their potential to emit, and all others at 0.15 lbs/mmBtu or a 75% reduction from 1990 rate; (21) or
- using a federally enforceable emission rate, not to exceed 1.5 lbs/MWh; or (5) basing

allocations on future potential output rather than past performance. (22)

Response: DEP believes that placing "caps" or "floors" on the allowance allocations would severely dilute or eliminate the policy objectives the output-based method is intended to achieve. DEP considers it important to select an allocation method based on fundamental environmental and economic principles, rather than the relative impact on competing economic interests. With an allocation based on useful output, facilities that most efficiently produce electricity (per unit of fuel consumed and per ton of NO_x emitted) will receive an allocation of allowances in each year that is likely to exceed their total ozone-season emissions. These facilities will be the sellers in the allowance market. On the other hand, less efficient units that produce more pollution per unit of useful output may receive fewer allowances than their expected ozone-season emissions; these facilities will be the buyers in the allowance market. Despite commenters claims, higher emitting facilities are not subject to greater reductions or emissions caps. They are free to purchase allowances from the market to account for any emissions in excess of their allowance allocations. DEP believes that this dynamic provides the correct signals for the allowance and electricity markets, and better matches the pattern of investment in pollution control technologies for existing facilities than alternative allocation methods. Newer more efficient units typically achieve lower emission rates as a result of significant capital and operating expenses associated with advanced emission control equipment that has not yet been installed on less efficient generating facilities. In addition, investments in pollution control are generally most cost-effective (in terms of dollars per ton reduced) on higher-emitting, less efficient facilities. The output-based allocation method will provide the financial incentives for reducing emissions through installing cost-effective emission control technologies on higher-emitting facilities.

Comment: The output-based method of allocation is inconsistent with the state's electric industry restructuring law and effort. Generation Performance Standards included explicitly in the restructuring law may be a more appropriate forum for implementing output-based standards. The restructuring of the electric industry introduces uncertainty into the future operation of generating facilities in the state, and may lead to unit dispatch patterns different from the past. In particular, the historical dispatch of peaking and some intermediate units may be significantly less under the new competitive market. (1) (7) (13) (16) (19) (21) (23) (24) (28)

Response: DEP disagrees that an allocation based on electrical output is explicitly or implicitly in conflict with any provision of the Electric Industry Restructuring Act, or that the output-based method is inconsistent with the new competitive market for electricity in Massachusetts and the rest of New England. DEP believes that the opposite is true. Consistency with the new realities of the regional electricity market and the state's restructuring law were key factors in DEP's choice of allocation method.

In the new competitive market, all of the electric generating facilities that are affected by 310 CMR 7.28 will compete based on the price per unit of electrical output. Long- and short-term wholesale power supply arrangements, electricity spot market bids, generating facility dispatch, and retail end-use customer’s selection of competing power supply offerings will all be indexed to the cost per unit of electricity. In addition, several provisions of the restructuring legislation place requirements on market participants in terms of fuel or environmental

characteristics per unit of net electrical output, including information disclosure, renewable portfolio standards, and generation performance standards. Other states in the Northeast have included similar output-based requirements in their own restructuring laws and regulations. At the national level, EPA has expressed interest in moving towards output-based requirements for electric generating facilities.

DEP agrees with commenters that the deregulation of the electric generating sector is likely to result in patterns and levels of generation dispatch that are different from past experience. However, DEP remains convinced that initial reliance on historical dispatch levels -- which were based primarily on short-term cost factors that will remain important in future dispatch decisions -- is a more reliable basis for the initial allocations than a modeled or projected estimate of future generation in a new competitive market. DEP has taken steps in the final rule to address this uncertainty, and to factor new generation experience into the allowance allocation more quickly than previously proposed. 310 CMR 7.28 implements an annual allocation that, after the first year, is based on an average of the highest two out of three years of actual electric generation.

Even with the average annual allocation, there is a required three-year lag in the calculation, due to EPA requirements to provide regulatory certainty for the applicable sources. To address the rapidly changing nature of the competitive market, DEP will assess the benefits and drawbacks to moving to an annual, post-hoc allocation based on actual operation during the control period for which the allocation is being made. DEP will review this issue over the next several years, and assess whether such a modification is warranted.

Comment: One commenter supports a five-year allocation, or at the very least, a three year allocation. (23) Other commenters support an annual allocation based on generation (1) (5) (6) (10) (13) (29), or an annual allocation method, with one exception; the highest two of three or five years of historical data should be used. (2) (4) (25) This would ensure allocations are responsive to the emergence of new generation.

Response: DEP has chosen an annual NOx allocation. This will allow DEP to use the most recent output data to allocate allowances and fold new, more efficient sources into the general allocation pool quickly. The initial allocation (2003) will be based on a five-year historical baseline. Source allocations for each control period following the initial allocation will be determined annually, three years prior to the control period, using an average of the highest two out of three years of actual electric or steam generation output data four, five, and six years prior to the control period for which allowances are being allocated.

Comment: Too long a period is allowed before new sources are folded into the general allowance pool. DEP should use more current data. (5) (13)

Response: Due to EPA requirements, there is a three-year lag between the calculation of allowances and the year in which the allowances can be used. This three-year period also provides regulatory certainty for the applicable sources. To address the rapidly changing nature of the competitive market, DEP will assess the benefits, drawbacks, and possibility of moving to an annual, post-hoc allocation based on actual operation during the control period for which the

allocation is being made. DEP will review this issue over the next several years, and assess whether such a modification is warranted.

Comment: Some commenters felt that the default allocation method should retain the as-needed allowance allocation method for public agencies (17), or municipals (16) (28) (33) used in 310 CMR 7.27. By allocating allowances on a historical basis after the year 2005, municipal generators may not have sufficient allowances to meet demand for electricity. Other commenters felt that the municipals should be treated the same as all existing sources. (13)

Response: In consideration of the unique status of municipals and public service agencies, DEP included them at a fixed allocation for a three-year period to allow them to adjust to the new electricity market. The public service agencies and municipal generating facilities (MBTA, MWRA, Potter Station in Braintree, Waters River 2 in Peabody, and Cleary Station in Taunton) will receive fixed allocations for the first three years of the program (2003 -2005). These allocations will be based upon allocations under 310 CMR 7.27, reduced by the ratio of the overall budget of 310 CMR 7.28 to 310 CMR 7.27 (and adjusted with all other sources so that the total of source allocations meets the state budget). Beginning with control period 2006, allocations to these facilities will be included in the general allocation in the same manner as all other facilities in the program, based on historical electrical and steam output.

Comment: DEP needs to state what the output-based rate will be for 2006 and beyond. (23)

Response: The output-based rate for 2006 and beyond will be the same rate as for 2003-2006, or 1.5 lb/MWh for electrical output and 0.44 lb/MWh for steam output, which provides an "unadjusted" allocation, which is then adjusted so that the total number of allowances meet the state budget (12,861). The output-based rate in the new unit set-aside account will remain at 0.2 lbs/MWh.

Comment: Commenter supports DEP's proposed allowance method, but suggests a rate of 0.6 lb/MWh; using average or median generation over three to four years instead of highest generation; and retiring allowances existing after distribution based on 0.6 lbs/MWh. (5)

Response: DEP will use the rate of 1.5 lb/MWh. After the initial allocation, allowances will be distributed annually, based on an average of the source's electrical and steam output during the highest two out of three years of actual generation data prior to the allocation. Under this structure, DEP will not retire remaining allowances.

Comment: The budget allocation for years 2006 and beyond should be based on the average of the highest net electrical output and heat input for useful steam output for ozone seasons within a sliding 5 year window. (23)

Response: DEP appreciates this comment, but will be allocating allowances for years 2004 and beyond based on an average of the source's electrical and steam output during the highest two out of three years prior to the allocation control period. DEP believes that this will provide the most available, recent data and will most closely reflect market conditions to support the distribution of allowances.

Comment: The commenter requests that exceptional-circumstances for Canal be considered, since two units were off-line in 1995 and 1996. (26)

Response: In the initial year of allocation, DEP is allocating allowances based on the highest two-year average net electrical output, using the two highest values of ozone-season net electrical output over the five-year baseline period 1994-1998. DEP finds that using this best 2-of-5 year method eliminates the need to grant exceptional circumstances for most facilities. Based on the allocation method, specific circumstances at the Canal units in 1995 and 1996 should not affect Canal's allocation for the 2003 ozone season. After careful consideration, DEP declines to consider exceptional circumstances for the Canal facility.

Comment: DEP should consider the post-control season true-up allocation scheme proposed during the public hearing on August 4, 1999. (4)

Response: In consideration of EPA requirements, DEP believes it is necessary to allocate allowances to participating facilities three years in advance, in order to provide regulatory certainty to sources. A post-control true-up allocation scheme could affect the approvability of the regulation by EPA. DEP agrees that a post-control season true-up allocation would result in allocations that more quickly address the rapidly changing conditions of the competitive electricity market. DEP will review the possibility of implementing such a system in the future.

2. PREFERRED OPTION

Comment: The majority of commenters stated that Option Two from the September 1999 Supplemental Technical Support Document is preferable, keeping in mind other comments. (3) (6) (16) (21) (23) (25) (26) (28) (33) Some preferred Option One, keeping in mind other comments (2) (8), while another preferred either Option Two or Three. (1) One commenter felt that either Option One or Three was preferable. (31) One commenter felt that none of the options achieve the goals set out by DEP. (13)

Response: DEP appreciates the input on this issue. All three of the proposed options from the September 1999 Supplemental Technical Support Document achieve the policy goals set out by DEP in discussions which began in 1996 with the promulgation of 310 CMR 7.27. In consideration of comments received, DEP has chosen to promulgate a slightly modified version of Option Two.

3. SIZE OF STATE NOx BUDGET FOR ALLOCATION

Comment: Commenter would like the rationale behind the final budget number explained. (23) (26) One commenter feels that the overall budget number is too low (23), while others feel that the overall NOx budget is too high. (30) (32)

Response: On July 27, 1998, after public review and comment, DEP submitted the Massachusetts Attainment Demonstration SIP Submittal for the one-hour ozone standard to the US EPA. The attainment submittal contained commitments to achieve in-state reductions necessary to attain and maintain the one-hour ozone standard, including to:

> … set a utility sector NO_x budget equal to the more stringent of the NO_x Ozone Transport Commission's Memorandum of Understanding for NO_x Reductions Phase III, or the EPA's final Ozone Transport SIP Call due to be published in September, 1998. Massachusetts will incorporate this budget into 310 CMR 7.27 by November 1999, and will implement the budget by May 2003.

By that time, the OTC NOx MOU budget had been finalized, after review and comment, and had established the Massachusetts NOx budget for Phase III at 12,861 tons. The OTC Phase III budget was also subject to review during its development in 1994/1995, and during promulgation of 310 CMR 7.27. Many current commenters took part in that development.

In May 1999, EPA issued the final controlled inventories, by sector, for states included in the NO_x SIP Call. The EPA NO_x SIP Call budget for Massachusetts, adjusted to account for the three-state MOU (see July 1999 technical support document page 6) and to incorporate non-EGU sources included in the Massachusetts allowance trading program, is 13,206 tons. Therefore, consistent with Massachusetts' commitment in its Attainment Demonstration SIP Submittal, the allocation options presented for public comment are based on the more stringent overall state budget of 12,861 tons.

Comment: Using the OTC MOU Phase III budget will unduly penalize Massachusetts' sources. (1) (3) (21)

Response: As stated in the July 1998 Attainment Demonstration, DEP believes that using the OTC MOU Phase III budget will provide air quality benefits for Massachusetts residents and downwind areas in New Hampshire and Maine. The DEP does not believe that that using the OTC MOU will place an undue burden on sources or consumers in Massachusetts.

Comment: DEP should explain what non-EGU sources were added, what generators were added, and if those allowances are sufficient. DEP should provide the data, calculations for source-specific calculations. DEP needs to verify source data and make it available. (3) (23)

Response: Once the regulation is final, anyone may view the data that went into calculating the source specific allocations, and may submit a public records request to DEP specifically detailing the information requested. DEP will subsequently make that information available, in compliance with public records law.

Comment: Commenter believes that the DEP cannot legally justify MATEP's inclusion in the 310 CMR 7.28 program. DEP's approach of allocating allowances to MATEP is inconsistent with public policy. (1) Other commenters would support the decision to exclude MATEP from the 310 CMR 7.28. (1) (6) (23)

Response: DEP has chosen not to include MATEP in the 310 CMR 7.28 program. This facility has notified DEP that it will make real and enforceable NOx reductions through a permit revision, and installation of year-round controls.

Comment: Commenter does not understand why the number of allowance in the pool drops by 333 tons rather than the 140 tons that would have been allocated to MATEP when MATEP was considered for inclusion in the program. (23)

Response: The effect of not including MATEP in the program is a decrease in the overall state budget of 333 tons, which was the number of allowances EPA allocated to MATEP under its 2007 controlled NOx inventory (from EPA's NO_x SIP Call). However, since DEP used 1.5 lb/MWh to allocate allowances in 310 CMR 7.28, MATEP was allocated 140 of those 333 tons in the original proposal. Therefore, the net effect of removing MATEP from 310 CMR 7.28, as compared to the original proposal, is a decrease of 140 allowances that would go to MATEP plus 193 allowances that might have been available to allocate to other existing sources.

Comment: DEP should consider exceptional circumstances for General Electric Lynn (GE). GE purchased power during the baseline period due to favorable electricity prices that were not available before the baseline period, and are not available now. (12)

Response: General Electric (GE) Lynn's allocation has been adjusted to reflect corrected data and to include consideration of 1993 operations (outside the original baseline). These were unique operational circumstances that included relying on a power purchase agreement during the baseline period 1994-1998. GE will receive 60 allowances for the allocation periods 2003 – 2005. For the 2006 allocation, GE will be allocated allowances along with all other existing units.

4. PUBLIC BENEFIT SET-ASIDE

Comment: Commenters strongly support the inclusion of energy and renewable set-asides. (8)

(29) (34)

Response: DEP agrees with the points raised by the commenters, and welcomes support for the Public Benefit Set-Aside.

Comment: The Public Benefit Set-Aside is not required under the EPA NOx SIP Call, and should be eliminated. (1) (3) (13)

Response: DEP is including a set-aside provision in 310 CMR 7.28 to encourage and reward the development of emission-reducing energy technologies in the Commonwealth. Many energy efficiency and renewable technologies have not matured to the point where they can compete with existing electricity generation units on the basis of price alone. However, these technologies can provide significant benefits by reducing impacts on human health, air, water, and land from electricity generation, reducing costs to the states to comply with federal environmental requirements, and generating in-state economic benefits associated with expenditures in local energy efficiency and renewable energy industries. DEP believes that these potential non-price benefits warrant establishing a Public Benefit Set-Aside. In addition, the Public Benefit Set-Aside is recommended by EPA in its Model Rule (40 CFR Part 96), and guidance.

Comment: Commenters feel that the Public Benefit Set-Aside is too high, and support it being reduced. (1) (3) (6) (12) (16) (21) (23) (25)

Response: DEP took this concern under advisement, and reduced the annual public benefit set-aside from ten to five percent of the overall budget. This reduces the number of allowances available for renewable energy and energy efficiency projects, and transfers 643 allowances back into the general allowance pool for existing sources each year.

Comment: The Public Benefit Set-Aside is too low. 5% of the overall budget sends a poor signal to the utilities. Renewable energy and energy efficiency projects should be encouraged. (5) (8) (13) (15) (20) (30) (32) (34)

Response: In response to this concern, DEP will allow unused allowances from the public benefit set-aside and new unit set-aside to be banked in those set-aside accounts for use in subsequent years. Unused allowances in one set-aside account can be transferred for use in the other set-aside account if one of the accounts is oversubscribed.

Comment: The Public Benefit Set-Aside is appropriate at 10% of the state budget. (8) (17) (18) (19) (20) (27)

Response: DEP appreciates the comment, but has made modifications to the Public Benefit Set-Aside, as discussed above, to take into account other concerns raised.

Comment: Any unused set-aside tons should be reallocated to existing sources on a pro-rata basis. (3) (8) (12) (17) (20) (21) (23) (25) (27)

Response: In response to this comment, DEP will allow banked allowances (i.e., allowances from previous years) in a set-aside account in excess of 10% (instead of 15%) of the total state budget to be distributed back to existing sources until the banked allowances in each account are down to 5% of the total budget. This will occur after the number of banked allowances are determined each year.

Comment: Any unused Public Benefit Set-Aside tons should be reallocated to the cleanest generator in the state. (15)

Response: DEP feels that any banked allowances in the set-asides that are to be redistributed should be allocated to all existing sources.

Comment: Some commenters feel that DEP's proposed Public Benefit Set-Aside is consistent and complementary with the Massachusetts Electricity Restructuring Act. (5) (8) (27) Others feel that the Public Benefit Set-Aside is redundant with incentives that are in the Massachusetts restructuring legislation, and with Division of Energy Resources regulations. (23)

Response: DEP strongly believes that the Public Benefit Set-Aside is consistent and complementary with the Massachusetts Electricity Restructuring Act. Several provisions in the Act indicate that the legislature has an interest in supporting the growth of the energy efficiency and renewable energy industries in Massachusetts in order to capture important environmental benefits and local economic gains for the Commonwealth. DEP expects that effective administration of the Public Benefit Set-Aside will provide a meaningful and complementary role to programs initiated through the Act's provisions. DEP intends to develop guidelines for administrating the Public Benefit Set-Aside that will ensure that its impact is not redundant other state policies.

Comment: DEP received comments on the banking of allowances in the set-asides. Some commenters feel that any unused allowances in the two set-asides should not be banked (20) (23), while others feel that banking the allowances is appropriate. (8) One commenter felt that each set-aside should be able to reach 15% after two allocation periods, and that unused allowances should then be returned back to budget units (3), while another supported 10% as the total number of the state budget that the set-asides should be able to reach. (16)

Response: DEP believes that the best way to accommodate the potential for over-subscription of the two accounts is to (1) allow the transfer of allowances between the two set-asides; and (2) to return of banked allowances from previous years in excess of 10% of the total state budget back to existing sources, until the banked allowances in the account are down to 5% of the total

budget. This will occur after the number of banked allowances are determined each year.

Comment: Commenters felt that the Public Benefit Set-Aside and New Unit Set-Aside should not be used to back up each other. (15) (23) Others support the relationship between the New Unit Set-Aside and the Public Benefit Set-Aside. (6) (8)

Response: DEP believes that allowing the banking of allowances in individual set-asides, and allowing unused allowances in one set-aside account to be transferred to the other set-aside account, gives new sources and energy efficiency sources more regulatory certainty. The only time in which there will be any transfer between the Set-Asides will be when one set-aside is over-subscribed and the other has an excess of allowances.

Comment: Using the Public Benefit Set-Aside to back-up inadequacies in the New Unit Set-Aside may be appropriate, but this solution is inadequate, unless there is an increase in the New Unit Set-Aside. (25)

Response: DEP agrees that using the Public Benefit Set-Aside to back up the New Unit Set-Aside is appropriate, and can help to address potential deficiencies in the New Unit Set-Aside. Other mechanisms to address this potential deficiency are discussed in response to comments on the New Unit Set-Aside, below.

Comment: DEP received specific comments on the distribution of the Public Benefit Set-Aside, including the following:

- Allowances from the Public Benefit Set-Aside should be limited to new, non-ratepayer funded projects. (7) (23)
- Any revenue allowances claimed as the result of ratepayer funded projects should be owned by ratepayers and used to further the objectives of the program. (8)
- Energy Efficiency investments made prior to 2003 should be rewarded in 2003. (8) (15)
- Energy Efficiency projects should earn credits for a minimum of five years. (8)
- The allocation should be based on the amount of energy generated by renewable energy technologies and the amount of energy saved by energy efficiency measures. (18)
- The regulation should indicate when and how DEP will allocate the allowances. (21)
- DEP should include power generation technologies that produce electricity from methane or combined heat and power as a qualifying form of Energy Efficiency. (15) (18)
- 1.5 lb/MWh should be used to calculate allowances claimed by energy efficiency and renewable energy generators. (8)
- The methodology for calculating annual allowances should incorporate the following factors: actual number of allowances claimed during the most recent ozone season; availability of banked allowances from previous seasons; a reasonable projection of renewable and energy efficiency projects; and multi-year awards for energy efficiency projects. (8)

Response: At this time, EPA guidance in this area has not been finalized, and this section of the

regulation is reserved. In the upcoming months, DEP will work with the Department of Telecommunications and Energy and the Division of Energy Resources to develop specific parameters for allocating Public Benefit Set-Aside allowances, e.g., who is eligible to receive allowances, the process to apply for allowances, and how allowances will be distributed. DEP will amend the regulation at a later date to include details on allocating Public Benefit Set-Aside allowances.

Comment: The proposed regulation should provide that the Public Benefit Set-Aside becomes applicable when EPA's SIP Call, the rule that establishes the Compliance Supplement Pool, takes effect; until then, allowances banked under 310 CMR 7.27 should be used to meet 310 CMR 7.28 requirements. (1)

Response: DEP disagrees. This regulation is based upon the framework of the NOx SIP Call requirements and includes a Compliance Supplement Pool. If the NOx SIP Call is overturned by the federal court, DEP will consider revising this regulation, specifically the compliance supplement pool provision.

Comment: Verifying NOx allowances for renewable energy generators should be fully integrated with the renewable portfolio standards mandated by the Massachusetts Electricity Restructuring Act. (8)

Response: DEP will make every effort possible to do so in developing its guidance.

Comment: Any set-aside to cover public authorities should be separate from, and in addition to, the Public Benefit Set-Aside. (15)

Response: DEP agrees. MWRA and MBTA will not receive allowances from the Public Benefit Set-Aside, but instead will receive set allocations for the first three years of the program, and, beginning with control period 2006, will be included in the general allocation in the same manner as all other facilities in the program, (i.e., based on historical electrical and steam output.)

Comment: The language in 310 CMR 7.28 (6)(b) (Allowance Allocation) is ambiguous, but seems to preclude persons that own a budget unit from receiving allocations for energy efficiency or renewable projects. (4)

Response: DEP has modified the language so that it clearly states that persons who own a budget unit may receive allocations for energy efficiency or renewable projects.

Comment: The Public Benefit Set-Aside provision 310 CMR 7.28(6)(b) does not explicitly indicate that the 5% allocation will be renewed each year, in contrast to the New Unit Set-Aside

provision (310 CMR 7.28(6)(b). Is there some reason the language in these two provisions differ; isn't it the intention of DEP to refresh both set-asides each year? (4)

Response: Yes, it is DEP's intention to refresh the Public Benefit Set-Aside each year. The language in 310 CMR 7.28(6)(b) will be modified to reflect this comment.

5. ALLOCATION TO NEW UNITS

Comment: All sources should be allocated at the same rate to level the playing field. DEP is hindering new, cleaner units from coming on line. (13) (10) (25) DEP should consider allocating allowances to new sources at the rate of 1.5 lb/MWh, and if there are not enough allowances, the amount could be prorated down to a lower level. (6)

Response: DEP disagrees. Since new units do not have historical operating data, they cannot be allocated allowances in the same manner as existing sources. To address these new units, 310 CMR 7.28, sets aside 5% of the state NOx budget each season to provide allocations to these sources at the rate of 0.2 lbs./MWh for their first four ozone season operations. After they have operated in one ozone season, these units will also receive allowances, for future use, from the general allowance pool at the same rate as existing units (i.e., 1.5 lbs/MWh). These allowances from the general pool cannot be used until the control period three years in the future.

If allocated at the same output-based rate as existing sources, the New Unit Set-Aside would need to be greatly expanded to accommodate new generating capacity. The additional tons for the New Unit Set-Aside would need to come from the proposed allocation to existing sources, thus lowering the pool of allowances to all existing sources. DEP believes that allocating to new sources during their initial period at 0.2 lb/MWh, and folding these sources into the existing source allocation over time, will ensure sufficient allowances to cover new source emissions while providing a smooth transition for adding new sources to the allocation.

Comment: Several commenters provided suggestions on the size of the New Unit Set-Aside. Commenters felt that a 5% New Unit Set-Aside is appropriate, as long as the EPA SIP Call budget is used (23), or as long as DEP allocates allowances based on the 0.2 lbs/MWh standard. (2) (6) Another felt that the DEP should not increase the size of its New Unit Set-Aside. (19) Others felt that the New Unit Set-Aside should be increased or should be allowed to grow to more than 15% of the state budget so as not to hinder new development (2) (13) (25), and that new units should not have to buy allowances, in order to encourage fair competition. (2) (6) One commenter stated that all plants should get the same emissions rate (0.6 lb/MWh), regardless of when they were permitted, and that the New Unit Set-Aside should be large enough to provide allocations on the basis of 0.6 lb/MWh for 7600 MW of new plants operating at high capacity factors. (5)

Response: Consistent with the policy goal of encouraging energy efficiency and pollution

prevention, DEP considers it important to ensure that sufficient allowances are available for new sources. In the early years of the new competitive electricity market, it will be very important that the allocation scheme not hinder the entry of new sources into this market. Although a significant quantity of new generation is expected in Massachusetts, the ultimate level and timing of new generation additions is uncertain.

DEP will maintain the new source allocation rate at 0.2 lb/MWh, and has included provisions to address this uncertainty. First, unused allowances from the new unit set-aside in one year will be banked in that account for use in subsequent years up to a level of 10% of the state NOx budget. If banked allowances (i.e., allowances from previous years) in a set-aside account total 10% or more of the total state budget, the banked allowances will be distributed to existing sources until the banked allowances in the account are down to 5% of the total budget. Second, unused allowances in the Public Benefit Set-Aside can be transferred for use in the New Unit Set-Aside if the New Unit Set-Aside is oversubscribed. Third, if the New Unit Set-Aside is oversubscribed (after all available allowances from the Public Benefit Set-Aside have been transferred), DEP will reduce allocations from the New Unit Set-Aside proportionately, so that the total of new source allocations does not exceed the available allowances.

Comment: No allowances should be given to new sources, as in the federal SO_2 program. (16)

Response: DEP disagrees. DEP is committed to giving new sources their allowances from the New Unit Set-Aside because DEP does not want implementation of the NOx allowance program to create barriers to entry in the regional electricity market.

Comment: Commenter supports DEP's proposal not to reallocate excess allowances to the existing source pool. (5)

Response: DEP has decided to bank allowances in each of the two set-asides (New Unit Set-Aside and Public Benefit Set-Aside) until such time that one or both totals 10% or more of the total state budget. When that occurs, the banked allowances will be distributed to existing sources until the banked allowances in the accounts are down to 5% of the total budget. DEP believes this method strikes a fair balance between ensuring sufficient allowances are available to cover potentially rapid new power expansion in the early years of the program, and making sure the set-asides do not get too large.

Comment: Unused New Unit Set-Aside allowances should not be carried forward (3), or should go to the Public Benefit Set-Aside. (18)

Response: To ensure that there are sufficient allowances available in any given year for new sources, unused allowances from the Public Benefit Set-Aside and New Unit Set-Aside in one year will be banked in those accounts for use in subsequent years. Unused allowances in one set-aside account can be transferred for use in the other account if oversubscribed. However, if banked allowances (i.e., allowances from previous years) in a set-aside account totaled 10% or

more of the total state budget, the banked allowances will be distributed to existing sources until the banked allowances in the account are down to 5% of the total budget.

Comment: Several comments were received on the order in which new sources will receive allowances. Some felt that a first-come first-serve approach penalizes units that cannot apply for allowances within a certain timeframe, and suggested that the New Unit Set-Aside be spread as evenly as possible among new sources in the system at any given time on a prorated basis. (6) (29) Others felt that sources should be allocated in order of reaching commercial operation. (23) Another commenter felt that if the New Unit Set-Aside is insufficient to meet needs of new sources, DEP should consider prorating the source for that year and then integrating it into the program the following year. (10)

Response: As noted above, the allocation method should not create any barriers to entry for new sources, and DEP has taken steps to address this concern. One step is that, in the event that the new unit set-aside is oversubscribed for a given ozone season, and after allowances are transferred to that account from the Public Benefit Set-Aside and allocated, DEP will reduce all new unit set-aside allocations proportionately, so that the total allocation does not exceed the available allowances in the new unit set-aside account. This will be done after the end of the ozone season.

Comment: The rule should include formulas used to determine allocations from the New Unit Set-Aside for units generating electricity and steam. Without such a provision, use of the default provisions in 310 CMR 7.28 (6)(e) will be difficult at best. (11)

Response: Formulas for new units generating electricity and steam whose allowances will be from the New Unit Set-Aside are included in 310 CMR 7.28(6)(c).

Comment: New units should be treated the same as existing units once they have a complete five year operating history. Units with less than five but more than two years of operating history should receive allocations based on highest two years of ozone operation. Units with one complete year of operations should receive an allocation weighted 50% on that year and 50% on the assumption of a 90% capacity factor. (25)

Response: DEP has decided that new units will be folded into the allocation once they have operated during one ozone season. For example, a new generating facility that commences operation in February 2003 will receive allowances from the new unit set-aside for control periods 2003 through 2006 at the rate of 0.2 lbs/MWh. In 2004, when DEP determines the allocations for control period 2007, the new facility will also be folded into the general allocation at the 1.5 lb/MWh rate, based on the formula in 310 CMR 7.28(6)(d)2.

Comment: One commenter felt that ANP Blackstone at the least, or ANP Blackstone and ANP Bellingham should be allocated allowances at 1.5 lb/MWh. (2) Some commenters felt that the

levels at which the recently permitted units received allowances exceeded their permitted levels, and that this was inappropriate.(12) (23) Others felt that the levels at recently permitted sources receive allowances was appropriate. (2) (6) Some suggested that the recently permitted sources be treated the same as other new sources. (1) (13) (16) (25) (26)

Response: DEP has promulgated a method for moving new units into the general allocation as quickly as possible. Since new units do not have historical operating data, they cannot be allocated allowances in the same manner as existing sources. To address these new units, 310 CMR 7.28, sets aside 5% of the state NOx budget each season to provide allocations to these sources at the rate of 0.2 lbs./MWh for their first four ozone season operations. After they have operated in one ozone season, these units will also receive allowances, for future use, from the general allowance pool at the same rate as existing units (i.e., 1.5 lbs/MWh). These allowances from the general pool cannot be used until the control period three years in the future.

Comment: Commenter feels that if the two set-asides are used up and new units still have not been allocated their full potential, that new units should be allocated allowances from the existing source pool at no cost. (2) (5)

Response: DEP is required to allocate allowances to existing source three years in advance in order to provide regulatory certainty. Removing allowances from the general pool to supplement the New Unit Set-Aside and Public Benefit Set-Aside would affect this regulatory certainty, and could possibly affect EPA's approval of 310 CMR 7.28. DEP believes that the best way to accommodate the potential for over-subscription of the New Unit Set-Aside is to: (1) allow the transfer of allowances between the two set-asides; and (2) to return of banked allowances from previous years in excess of 10% of the total state budget back to existing sources, until the banked allowances in the account are down to 5% of the total budget. DEP believes that allowances in the two set-asides will be sufficient to allocate to new units.

Comment: Commenter feels that new units should move to the existing source category after their first full year of commercial operation. If this is not so, then the commenter recommends using the highest two of the past five years of historical experience as the basis for allocating allowances to new units; for any new unit that has not operated a full five seasons, DEP should assume a 90% capacity factor for the period when the plant was not yet in service. (25)

Response: DEP agrees, and has modified 310 CMR 7.28 to allow new sources, after they have operated in one ozone season to receive allowances for future use from the general allowance pool at the same rate as existing units (i.e., 1.5 lbs/MWh). These allowances from the general pool cannot be used until the control period three years in the future. existing source category after one ozone season of operation. For any new unit that has not operated a full ozone season, DEP is assuming a 90% capacity factor for that ozone season.

6. PROCEDURES

Comment: The process leading to DEP's proposed regulations was not as open and collaborative as it should have been. (3) (7) (13)

Response: DEP must meet specific requirements in order to promulgate regulations; having collaborative meetings on proposed draft regulations prior to notice and public hearings on such proposed regulations is not required. However, in order to receive feedback from affected sources and others interested in DEP's response to the SIP Call, DEP prepared an early draft of its proposed regulation and allocation method. Copies of the proposed draft regulation were mailed to all affected sources, other state agencies, the US EPA, and other representatives from industry and environmental advocacy organizations. The draft allocation and regulation, and supporting information, were posted on DEP's web page on March 29, 1999. Subsequently, DEP held two rule reviews meetings, on April 7 and April 21, 1999, to discuss DEP's proposed draft regulation and receive feedback, and modified its draft proposal. As required by state law, DEP gave notice and provided the public the opportunity to review background and technical information at least 21 days prior to proposing the SIP amendments at public hearings. To assure adequate notice for processing a SIP amendment and to comply with EPA notice requirements, a formal notice was issued 30 days before the public hearings. Public hearings to collect comments on the proposed SIP revisions, including the proposed NO_x Allowance Trading Program, 310 CMR 7.28, were conducted under the provisions of M.G.L. Chapter 30A. DEP feels that these steps were sufficient.

Comment: The process leading to DEP's proposed regulations was sufficient. (2)

Response: DEP agrees.

Comment: DEP should conduct this SIP revision similar to the MA Restructuring Act in terms of stakeholders and collaborative effort. (7) (13) (23) (26)

Response: DEP believes that the public input process for this proposed regulation has been adequate and sufficient. The Massachusetts Restructuring Act is a statute enacted by the legislature; this proposed program is a regulation that is administered by an executive agency. There are different requirements for each; DEP has more than met all of the requirements for promulgating regulations, and does not believe that the process or model used in enacting a statute is an appropriate comparison or model.

Comment: The Memorandum of Understanding (MOU) between CT, RI, MA and EPA regarding EPA's NOx SIP Call allowances has not been subject to public hearing. (3) (23)

Response: MOUs are generally not subject to public hearings. The action resulting from a state's commitment under the MOU goes out to public hearing. As a result, the change in Massachusetts' state NOx budget under EPA's NOx SIP Call was subject to public input when

EPA solicited comments in the September 15, 1999 Federal Register, "Notice of Proposed Rule Revisions Set Forth in EPA's Finding of Significant Contribution and Rulemaking for Purposes of Reducing Regional Transport of Ozone for the States of Connecticut, Massachusetts, and Rhode Island" (40 CFR Part 51, Vol. 64, No. 178). In addition, the Three-State MOU's amendment to the NOx SIP Call Budget is irrelevant, since the DEP used the budget included in the OTC MOU. It is only relevant for purposes of the number of allowances available in the Compliance Supplement Pool.

Comment: DEP did not solicit comments on certain data and assumptions that went into establishing the budget. (23)

Response: DEP disagrees. In the July, 1999 Technical Support Document, DEP provided sufficient background as to how the budget number was derived so as to provide commenters an opportunity to comment on the proposed budget. In the Technical Support Document for the revisions to the Massachusetts State Implementation Plan for Ozone: Attainment Demonstration Submittal (June, 1998), DEP indicated it intended to use the more stringent budget, and received comment.

The OTC NOx budget was subject to public review and comment during its development, during the Winter of 1994-1995. DEP also provided notice and an opportunity to comment on the Massachusetts NOx budget in November-December 1996, during the public comment period on 310 CMR 7.27. In the Technical Support Document for 310 CMR 7.27, DEP specifically identified that the NOx budget for 2003 and beyond would be based on Massachusetts' budget in the OTC NOx MOU, and reserved the section of the regulation addressing the 2003 budget pending further action by EPA, OTC and DEP. In the Technical Support Document for the One-Hour Ozone Attainment Submittal, released in May 1998 for public comment, DEP also expressly stated its intent to adopt the more stringent utility budget of the OTC NOx MOU or EPA's 22-state SIP call. The budget was also in the Technical Support Document and subject to public comment during the recent public hearings for this regulation. While interstate MOUs are not generally subject to notice and public comment, the "three-state MOU" was published in the Federal Register for public comment (64 FR 49987). Since DEP has chosen the more stringent budget under the OTC NOx MOU, the three-state MOU does not affect the budget in 310 CMR 7.28.

Comment: Due to the DC Circuit Court ruling on EPA's NOx SIP Call, the DEP is under no federal obligation to proceed with 310 CMR 7.28. The best course of action would be to postpone action until the Courts and EPA are closer to resolution, and until operating data under the new market system can be examined and incorporated in this regulation. Massachusetts should not proceed unilaterally with the proposed regulations. (1) (3) (7) (9) (12) (13) (16) (23) (26) (28)

Response: DEP does not agree, and is adopting 310 CMR 7.28. Massachusetts is not proceeding unilaterally with a NOx Cap regulation. Four Northeast states either have already submitted or will soon submit their NOx Cap regulations under the NOx SIP Call to EPA; others

states will be following shortly. In addition, DEP made a commitment, along with other OTC states, to submit this regulation to EPA in Fall 1999, and committed in its Massachusetts Attainment Submittal to submit the regulation to EPA no later than November 15, 1999. DEP is under obligation through the ozone SIP, to promulgate this regulation in order to attain the one-hour ozone standard.

Comment: Commenter does not believe that the regulation should be delayed because of the uncertainty created by federal litigation. (2) (27)

Response: DEP agrees.

Comment: The rulemaking power granted to DEP by the legislature is not the power to make law. Agency rule is invalid if it is inconsistent with the enabling statute. (16)

Response: Chapter 111, § 142A-E gives DEP the authority to promulgate regulations in order to prevent pollution or undue contamination of the atmosphere. The purpose of 310 CMR 7.28 is to reduce NOx emissions in Massachusetts, and to reduce ozone formation. This proposed regulation is within DEP's authority as granted by the legislature.

Comment: In promulgating and enforcing regulations, DEP must accordingly take care not to "trench upon the jurisdiction of another agency" or to take action in conflict with statutes other than its own. (16)

Response: DEP finds that 310 CMR 7.28 is not in conflict with the Restructuring Act, and does not "trench upon the jurisdiction" of another agency, namely the Department of Telecommunications and Energy. It is designed to implement a necessary emission control program in a manner closely aligned with the new electricity market. 310 CMR 7.28 will not impede market forces, because under 310 CMR 7.28, a facility can operate at maximum operating status without penalty as long as it has enough allowances in its compliance account to equal its total NOx emissions for the ozone season. Nothing in 310 CMR 7.28 prevents or limits the extent of unit operation.

Comment: DEP's proposal violates DEP's duty to minimize economic cost of air quality standards (§142D). (16) (23)

Response: DEP disagrees with this analysis of the NOx allocation method. DEP analyzed the costs of implementing 310 CMR 7.28. In that cost benefit analysis, DEP concluded that, regulating large point sources through a cap and trade program with an output-based allocation method will more likely minimize costs to consumers and maximize environmental benefits compared to other regulatory programs and allocation methods. In fact, assuming that the industry passes all of the costs incurred from implementing 310 CMR 7.28 along to the residential consumers, these consumers will spend on the average no more than eleven cents per month to

help achieve a significant reduction in NOx emissions as required under the Clean Air Act.

Comment: DEP's use of older output data may be arbitrary and capricious. (13) (16) (23)

Response: DEP does not agree that the use of older output data is arbitrary and capricious for determining the number of allowances in the allocation. Historical output data has been used by EPA and regulatory agencies as a standard and acceptable practice. In addition, DEP has adopted a yearly allocation so that future allocations will be based on more recent data and will more accurately reflect fluctuations in the electricity market.

Comment: The provision to opt-in any facility (310 CMR 7.28 (4)(d)) without specifying any criteria is arbitrary and should be deleted (12), or constitutes a major revision, and would require a formal proposal, public hearing and comment period, and technical and economic justification. (7)

Response: This provision is identical to the language DEP adopted in 310 CMR 7.27. The main criteria for invoking 310 CMR 7.28 (4)(d) is whether the facility is causing or contributing to a condition of air pollution. When DEP invokes this section, it will notify the facility and give that facility an opportunity to address the claim that it is causing or contributing to a condition of air pollution.

Comment: DEP has not met the requirement of Executive Order 384, as there is no indication that it has analyzed the cost/benefits of the proposed rule. (23)

Response: DEP has complied with the requirement of Executive Order 384. DEP conducted a cost benefit analysis to the Executive Office of Administration & Finance's satisfaction, and concluded that, regulating large point sources through a cap and trade program with an output-based allocation method will more likely minimize costs to consumers and maximize environmental benefits compared to other regulatory programs and allocation methods. In fact, assuming that the industry passes all of the costs incurred from implementing 310 CMR 7.28 along to the residential consumers, these consumers will spend on the average no more than eleven cents per month to help achieve a significant reduction in NOx emissions as required under the Clean Air Act.

Comment: The language in the OTC MOU does not require that allowances for all future growth to come out of the same pool as existing sources' allowances. (23)

Response: The OTC MOU set a statewide cap on NOx emissions from sources or a particular type. The cap was calculated based on 1990 operations, and growth must take place under that emissions cap. This principle was clearly delineated during OTC Model Rule development.

7. MONITORING AND REPORTING

Comment: DEP cannot require sources that are not already required to submit quarterly NO_x emissions reports year-round to do so under 310 CMR 7.28. (1)

Response: DEP disagrees. 40 CFR 75.74(a)(2) states, "The owner or operator of an affected unit subject to a State or federal NO_x mass reduction program that adopts the provisions of this part and that requires monitoring and reporting of hourly emissions on an annual basis must meet the requirements of this part during the entire calendar year." Monitoring and reporting pursuant to 40 CFR 75 Subpart H are requirements of 310 CMR 7.28(11) and (13), respectively. Although DEP believes that it has the legal authority to require all sources to report year-round, upon review of the submitted comments, DEP has decided not to require all sources to report year-round (see response to the next comment for further detail).

Comment: Several commenters expressed the concern that quarterly reporting is overly burdensome. Facilities should only have to submit quarterly reports for 2nd and 3rd calendar quarters (the ozone season). Another commenter stated support for year-round monitoring and reporting requirements. (13) (16) (19)

Response: DEP has decided to require year-round monitoring and reporting only from NO_x Budget Units using a NO_x monitor (i.e., a continuous emission monitoring systems (CEMS)) to determine emissions. Such sources must report NO_x and heat input measurements (or appropriately substituted missing data values) for every hour of every quarter. Smaller sources were excluded from these requirements due to considerations of burden. DEP has amended 310 CMR 7.28(13) accordingly.

Comment: 310 CMR 7.27 should be amended to explicitly allow new sources to perform 310 CMR 7.27 NO_x Budget monitoring in accordance with 40 CFR Subpart H. Such an approach would help to minimize the need for monitoring changes when 310 CMR 7.28 becomes effective in 2003, and is consistent with the DEP's intent to issue monitoring/certification approvals simultaneously for both rules, as discussed in the preface to this rule. (4)

Response: DEP agrees with the commenter, and will amend 310 CMR 7.27(11) to allow facilities meeting the requirements of 40 CFR 75 Subpart H to satisfy the monitoring requirements of 310 CMR 7.27(11).

Comment: Language should be added to 310 CMR 7.27 to indicate that, once a monitoring system is certified under 310 CMR 7.28, the applicable monitoring provisions under 310 CMR 7.28 supersede those of 7.27. It is further suggested that the reporting provision, 310 CMR 7.28(13)(a)1. be modified to indicate that the initial reporting under 310 CMR 7.28 does not begin until the reporting requirements under 7.27 expire. (4)

Response: DEP agrees with the commenter's first suggestion, and has added language to 310 CMR 7.27 as discussed in the above response. As for the second suggestion, the reporting

requirements under both rules can overlap. For example, 310 CMR 7.28 requires sources to begin reporting at latest with the second calendar quarter of 2002, while 310 CMR 7.27 requires reporting of 2002 data in order to determine 2002 emissions. Thus, each budget unit will submit a single data file for the second calendar quarter of 2002 that will fulfill requirements under two separate regulations. Thus the commenter's suggestion that reporting under 310 CMR 7.28 does not begin until the reporting requirements under 310 CMR 7.27 expire is incorrect.

Comment: It should be clarified, in either 310 CMR 7.28 (7)(d)2 or in associated guidance, that the Department notification referred to in option (i) could consist of a simple description of the Monitoring Plan change in RT 910 of the quarterly electronic data report submittal. (4)

Response: DEP agrees with the commenter and has amended the language in 310 CMR 7.28(7)(d)2.i. to, "…explanation of the change in the next quarterly electronic report."

Comment: 310 CMR 7.28(11): This section does not contain important provisions that set out the responsibilities of DEP and US EPA concerning monitoring. The simplest solution would be to state that DEP and the EPA would follow the procedures in 40 CFR 75 Subpart H. In addition, the following are analogous terms: "designated representative" and "AAR". DEP should include the provision 96.70 in 310 CMR 7.28(11) in order to clarify how a Budget Unit must comply with Part 75 requirements. (11)

Response: DEP agrees in part with the need for clarification to 310 CMR 7.28(11), and it now states that DEP and the administrator will follow Subpart H procedures. DEP does not believe the other changes are needed.

Comment: 310 CMR 7.28(13)(d) provides that "Department approval of the request for shutdown exemption will be sent to the AAR, and the Administrator, and may contain conditions as deemed necessary by the Department." Under 40 CFR 96.5, a shutdown unit is conditioned on application and monitoring requirements should the unit restart, and on keeping records of the shutdown.(11)

Response: By definition, any source that permanently shuts down operations must turn in its permit. If the shutdown unit restarts, the unit will be treated as a new source under 310 CMR 7.02(2). If the "new source" meets the applicable thresholds, 250 million BTUs per hour and/or 15 MW of electrical output, the source would need to be approved under 310 CMR 7.28(7) and meet all applicable requirements, including monitoring. Therefore, DEP considers the suggested language unnecessary.

Comment: Commenter expressed concern that in order to protect public health, principally asthma and elderly mortality, DEP should not wait until the year 2003 to start new monitoring requirements. (14)

Response: DEP appreciates this concern, but to ensure that 310 CMR 7.28 is acceptable for approval by EPA, the first monitoring year can be no earlier than 2002. However, the monitoring of NOx is currently required under 310 CMR 7.19 and 310 CMR 7.27.

Comment: Commenter stated DEP should establish a multiple pollutant emission reduction reporting system that provides one-stop reporting of reduction of sulfur dioxide, NO_x, particulate matter, mercury, greenhouse gases, and other pollutants. (15)

Response: The purpose of 310 CMR 7.28 is to implement an ozone control program by the reduction of NO_x, and as such, is limited to the monitoring of NO_x. DEP is considering such an expanded system, but such system will not be included in this regulation. However, the establishment of the NO_x reporting system could be used as a template for other pollutants in the future.

Comment: Commenter supports the 25 tons of NO_x during the ozone season limit instead of the 50 tons annually for qualifying as a low-mass emitter. (19)

Response: DEP has decided not to require low-mass emitters to report year-round, and therefore, the appropriate qualifying criteria is 25 tons of NO_x during the ozone season.

Comment: It may be difficult to assemble ozone season MW and steam usage information within the fifteen day end of ozone season timeframe specified in 310 CMR 7.28(13)(e), if units do not normally compile process output data on a real time basis. It would seem more reasonable and consistent with other program deadlines, to allow thirty days for such a data submittal. (4)

Response: DEP believes that 15 days is adequate to report such outputs.

Comment: The deadline to request allowances for new sources should be extended to October 30 from October 15. Imposing a tighter time frame on new sources for preparing their electronic data report and allocation request submittals seems particularly inappropriate; new sources are likely to be the most unfamiliar with the electronic data reporting process and therefore most in need of the full 30 day period following the end of the ozone season to generate and review the electronic data report. (4)

Response: There is no need to generate the EDR earlier than the usual 30 days after the end of the quarter deadline, as allowances under 310 CMR 7.28 are allocated based on electrical output, not monitored NOx emissions. The allocation to new sources is based on electrical or useful steam output, not the EDR. DEP believes that 15 days is adequate time to collect and report outputs. In addition, DEP wanted to give new units enough time to buy or sell allowances before the November 30 compliance date.

8. OTHER

Comment: DEP received several comments on steam allocation. Commenters felt that the allocation factor should be based on the non-EGU allocation factor used by EPA (0.17 lb/MMBtu) converted to an output format using a boiler efficiency in the 70 to 80% range. Thermal output should be credited around 0.22 lb/MMBtu, and the current factor sets too high an allocation. (6) (25) Other commenters suggested that, as the program progressed, DEP should switch to collecting data on actual thermal output rather than converting from estimated heat input. (6) (29)

Response: DEP appreciates the comment and recognizes that the current method is a simplified default method in lieu of using measured steam output data. DEP will continue to work with EPA and others on further developing steam output measurement capabilities, and will require measured steam output data for steam allocations when possible.

Comment: Commenter does not favor the low mass emitter methodology. (14)

Response: The NO_x Allowance Trading Program is part of a regional strategy to improve air quality in the OTR states, and possible in a 22-state region. Certain provisions must be included for EPA to approve this SIP revision, including an allowance trading provision and specific monitoring options. The new low mass emitter methodology of 40 CFR 75.19 is part of the package of monitoring approaches that have been developed by EPA. The low mass emitter provisions are conservative and calculate emissions based either on a conservatively high default value, on actual test results multiplied by a factor of 1.15, or on the 95^{th} percentile value of an extensive monitoring data set. If anything, these provisions are likely to overestimate emissions.

Comment: One commenter objects to DEP's "once in, always in" approach and the elimination of the exemption contained at 40 CFR 96.4(b). Other commenters support the "once in always in" approach. (1)(19) Others feel that the absence of any "once in, always in" provision in this rule suggests that such an option should be allowed. (4)

Response: DEP will not be eliminating the "once in always in" provision in 310 CMR 7.28. Although DEP could have narrowed applicability under the program to exclude smaller sources, as in 40 CFR 96.4(b), that option was not pursued at this time. However, one facility that was included in 310 CMR 7.27 will not be subject to 310 CMR 7.28. That facility did not meet the applicability requirements of 310 CMR 7.27 or 310 CMR 7.28, but under 310 CMR 7.27, DEP considered it to be a source that contributes a significant amount of NOx. Since the facility has committed to make real and enforceable reductions of NOx through a permit revision, DEP has decided not to include it in 310 CMR 7.28.

Comment: DEP's proposal is biased towards gas-fired generation, which may create a fuel diversity problem, with cost, employment, and reliability consequences. The proposed regulation may also affect the competitiveness of in-state power plants. (3) (7) (23)

Response: DEP does not agree that 310 CMR 7.28 will affect the competitiveness of in-state power plants, since similar requirements will be borne by most electric generating facilities in the New England region and the Northeastern US.

DEP disagrees with the claim that the regulation will result in fuel diversity or reliability issues. The marginal cost to facilities affected by this regulation is capped at the cost of purchasing allowances in a multi-state regional allowance market to cover emissions in excess of allowances allocated to the facility. Such costs have been estimated at a few hundredths of a cent per kWh generated. This level pales in comparison to the more traditional economic factors affecting the widespread interest in constructing new gas-fired generation in the region. Further, the level of gas-fired generation in New England for some time is likely to be limited not by the relative economics of competing fuels or the impact of state NO_x requirements, but by the level of available gas supply in the region.

Comment: DEP's proposal will not cause grid reliability problems, particularly since there is plenty of new generation expected to be online by 2003. (2)

Response: DEP agrees.

Comment: Sources already in 310 CMR 7.27 should not have to submit another ECP and pay additional permit fees for 310 CMR 7.28. The compliance certification is redundant with many existing reporting requirements. (16)

Response: There are differences in monitoring requirements between 310 CMR 7.27 and 310 CMR 7.28 that will require review by DEP, and which necessitates submitting an additional ECP and permit fee. The compliance certification is necessary to ensure the integrity of the program.

Comment: DEP should propose further NO_x reductions for 2006 and beyond, citing New England Governors/Eastern Canada Premiers Acid Rain Plan of 1998. (19)

Response: The Governor signed onto the 1998 Acid Rain Plan, and DEP is committed to meeting the schedule set forth in that plan.

Comment: DEP should allow trading, as originally agreed upon in OTC MOU, between New Hampshire and Massachusetts NO_x Budget sources. (19)

Response: If New Hampshire's program is approved by EPA, then New Hampshire allowances can be traded anywhere in the program.

Comment: NOx reductions need to be universal; data shows that ozone attainment is dependent on reductions in transport from upwind power plants and reductions in mobile emissions. Without yearly adjustments for each inventory category it is likely that Massachusetts emissions will exceed the Massachusetts Controlled Inventory NOx Budget. (7) (14) (23)

Response: This regulation is one piece of a multi-faceted program to attain and maintain the ozone standard. DEP also implements programs that control mobile and area sources to reduce NOx and VOC emissions. DEP is also active in efforts to reduce pollution transported into Massachusetts, including regional program through the OTC, NESCAUM, and OTAG, and the 126 petitions submitted to EPA in 1997.

Comment: The Compliance Supplement Pool should be allocated at 1.5 lbs/MWh to facilities in the budget baseline. "Full allocation sources" should not receive allowances from the Compliance Pool. (23)

Response: Full allocation sources are not allowed to bank allowances distributed to them by DEP under 310 CMR 7.27. They are allowed to purchase allowances from others and bank them. DEP will distribute its Compliance Supplement Pool to all sources with acceptable banked allowances.

Comment: Commenter would like to know if the commitment in the Three-State MOU to reduce the EGU budget by 5% and retire that amount to the environment is a new or old commitment, and how DEP proposes to meet that commitment. Commenter suggests that the set-asides are sufficient to meet any such promise. (23)

Response: DEP believes that the adoption of the OTC Phase III budget and two set-asides are sufficient to address the 5% of allowances that are to be retired to the environment.

9. DEFINITIONS/TECHNICAL COMMENTS

Comment: Allowances may be deducted for purposes other than compliance, such as opt-ins. DEP should include language from §96.31 in 310 CMR 7.28(14)(a). Also, there are no provisions for deducting from overdraft accounts or deducting for common stacks. Commenter suggests that DEP incorporate 95.54(b) and (e) by reference or include its language in 310 CMR 7.28(14). 310 CMR 7.28(14)(b): EPA deducts allowances on a first in, first out basis unless the Authorized Account Representative specifies otherwise. [see §96.54(c)(2)] The order of deduction in 310 CMR 7.28(14)(b) is not consistent with first in first out and should be changed. (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation, but

will not incorporate 96.54(b) and (e) by reference**.**

Comment: In 310 CMR 7.28(14)(d) & (e): Not all allowances are available for compliance and allowance - transfers must be made correctly to be recorded. The following language should be added in both provisions to reflect this: "...allowance transfers should be submitted in accordance with 310 CMR 7.28(10) by the allowance transfer deadline..." and "...allowances in the budget unit's compliance or overdraft account available for compliance under 40 CFR 96.54..." (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: "State trading program budget" should reference 40 CFR 51.121 rather than 40 CFR Part 96. (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: The definition of "allowance deduction" should reference deductions under 310 CMR 7.28(4)(c)4. and 310 CMR 7.28(14). (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: The definition of "budget unit" should be amended to include language "emits all NOx emissions through a stack." (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: 310 CMR 7.28(6)(a): Initial allocations submitted to EPA are only required to be submitted for one control period. Massachusetts needs to submit allocations for only the year 2003 ozone season, initially. (11)

Response: DEP acknowledges the comment and has included a table with 2003 allocations in this SIP submittal**.**

Comment: 310 CMR 7.28(6)(e): the regulation needs to be amended in order to comply with 51.121, "...2005 prior to March 31, 2000 then on April 1, and each year..." The rule should clarify whether "average output" is net or gross and how it will be determined. (11)

Response: DEP has changed the allocation process so the above comment is no longer relevant**.**

Comment: 310 CMR 7.28(6)(f): The broad barring of allowance transfers is unnecessary and could hinder the market. (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: 310 CMR 7.28(6)(h): This paragraph needs to be modified to refer to "surrender or retirement" not "deduction." (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: 310 CMR 7.28(6)(l): First, according to 51.121, only reductions made in the 2000, 2001 and 2002 control periods are eligible as Early Reduction Allowances. This applies to OTC banked allowances. Second, the compliance supplement pool numbers should be 473 MA, 473 CT and 15 RI, not 480 in MA. (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: DEP needs to include a provision in 310 CMR 7.28(4)(d) to address what happens if a unit undergoes a physical change, which would result in the unit "initially" meeting the definition of "budget unit". (11)

Response: DEP acknowledges the comment but does not believe the change is necessary.

Comment: Commenter does not support DEP's definition of "existing budget unit". (2)

Response: DEP has modified its definitions of new and existing budget units to match its allocation method.

Comment: The proposed rule lacks the provision of 40 CFR 96.74(a)(2) requiring both the designated representative and the Authorized Account Representative to sign submissions by budget units that are also affected units under the Acid Rain program. (11)

Response: DEP acknowledges the comment but does not believe the change is necessary.

Comment: In the definition of "commence operation" - the inclusion of start-up of emission monitors and control equipment is confusing and unnecessary. "Commence operation" should correspond to the initial firing of the budget unit. Another commenter stated the definitions of "Commence operation" and "Commence commercial operation" need to address a repowered, reconstructed or modified Budget Unit. (4)(11)

Response: DEP does not believe the change is necessary.

Comment: DEP should add definitions of "combustion unit," "common stack," "modified unit," and "ton." (11)

Response: 310 CMR 7.00 contains the definition of "combustion device." Therefore, DEP did not add a definition of "combustion unit." 310 CMR 7.02(2) states "…issuance of a plan approval for any construction, substantial reconstruction, alteration…." The definition of "substantial reconstruction" in 310 CMR 7.00 states, "means any physical change in, or changes in the method of operation of a facility…." Therefore, DEP did not add a definition of "modified unit." A ton is standardly considered 2000 pounds, and there is not need for DEP to add a definition for it. DEP does not believe a definition of "common stack" is needed.

Comment: "Heat output rate, "net power output" and "repowering" should be defined in 310 CMR 7.28 and the appropriate formulae for calculating the output rates should be provided. (11)

Response: A definition of "repowering" is already contained in 310 CMR 7.28(2). DEP does not believe a definition of "heat output rate" or "net power output" is necessary. The regulation at 310 CMR 7.28(6) provides the formula for calculating allowance allocations based on output.

Comment: Commenter feels that "commencement of operations" should be changed to "commencement of normal operations," which would be defined for this purpose as occurring after completion of the compliance stack tests for the unit. This would ensure that new plants are not penalized for low and irregular power generation during the test and shakedown period. (31)

Response: The DEP has addressed concerns about shakedown period operations by allocating allowances based on a floor of 90% capacity utilization during the first control period of operation. DEP believes that all NOx emissions should be accounted for, and that further amendment is unnecessary.

Comment: The definition of "Current year" is unnecessary and should be deleted. (11)

Response: DEP believes that it is necessary and will not delete the definition of "current year."

Comment: In 310 CMR 7.28(15)(b): DEP needs to provide the Authorized Account Representative the option of providing the percentages of allowances to be deducted for units on common stacks. (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: "Excess emissions" should put in language "allowances available for compliance" as in other 310 CMR 7.28 provisions. (11)

Response: DEP acknowledges the comment and has incorporated it into the final regulation**.**

Comment: New units should be defined as any unit that began operating after 1995. (23)

Response: DEP has clarified the definition of new unit to be any facility that commences operation after the 1998 ozone season and has not been allocated allowances in the current year.

Comment: A commenter suggests language to clarify 310 CMR 7.28(6)(e). Suggested language, "each budget unit must report facility's metered net electric, **or** steam output **if appropriate**, for that year's ozone season." (4)

Response: That section has been deleted in the final regulation.

Comment: A commenter states the provision in 310 CMR 7.28(6)(a)4. Indicating that a "new" budget unit becomes an "existing" unit after two seasons of operation does not seem entirely consistent with the definition of "existing budget unit" specified in the rule. In particular, the definition seems to indicate that a "new" unit will only be classified as an "existing" unit for purposes of allocations after it has operated in five ozone seasons, not two seasons. (4)

Response: The definition of "new" and "existing" budget unit has been changed to account for DEP's current allocation process.

Comment: Commenter suggests that the language in 310 CMR 7.28 (7)(a)3. be revised to indicate that the exclusion could not be applied if the retrofit causes a significant increase in emissions of a criteria pollutant. (4)

Response: DEP agrees, and has amended 310 CMR 7.28(7)(a)3 to read, "…causes an increase of any criteria air pollutant."

Comment: 310 CMR 7.28 (4)(c) (Applicability) does not explain what method DEP would use to calculate the allowance adjustments or when DEP would make the allowance deduction. (11)

Response: EPA currently has a method to accomplish this, and DEP has incorporated by reference the same method.